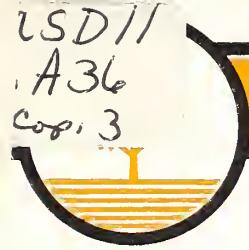


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FOREST RESEARCH NEWS

FOR THE MIDSOUTH

April 1973

SOUTHERN FOREST EXPERIMENT STATION, FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Help for the Home Buyer

The typical home buyer cannot tell whether a house is likely to outlive its mortgage without costly decay or insect damage. What should he do? A house doesn't even have tires to kick. He should obtain a copy of "Finding and Keeping a Healthy House," a booklet just published by the Southern Forest Experiment Station. There he will learn where to look for signs of decay and insect damage. The booklet describes the conditions under which wood is susceptible to attack, and it tells how attacks can be prevented.

With this knowledge, a home buyer can inspect a house thoroughly himself. He need not depend upon others to evaluate one of his most important investments.

The information is just as applicable to new as to old houses, and it is valuable to owners as well as buyers. Unless a new house

is well designed, damage will almost certainly occur in just a few years. And the booklet provides tips for maintenance, which is as important as design in preventing damage.

DECAY

The organisms that cause decay of wood require a moisture content of about 30 percent. The wood in a properly designed and maintained home is safe because its moisture content is seldom above 15 percent. The prescription, then, for preventing decay is simply to keep wood dry.

Sources of moisture for decay include rain, condensation, plumbing leaks, and the soil. Soil conducts water and can easily raise the moisture content of wood in contact with it or directly above it to a point where decay is possible. The buyer, therefore, should see to it that the lowest wood members in a house are well above the soil around the entire perimeter. With concrete slab construction, a portion of the slab should be visible on all sides of the house.

Water drainage away from the house is very important. Crawl spaces should be at least 18 inches high and well ventilated. Earthfilled porches, patios, and flower planters should be separated from the foundation by 1 to 2 inches. Roof overhang protects siding, windows, and doors



from rainwater. In most parts of the United States 18 inches of overhang are sufficient, but in areas of high rainfall such as the Gulf Coast 30 inches are desirable.

Failure to maintain caulking leads to decay around windows and doors. Leaking gutters and downspouts cause decay of fascia boards and siding. Roof leaks, particularly those near the edges of the building, can quickly cause very extensive damage.

A film of paint helps to shed water. Peeling paint and nail pulling indicate that the wood beneath is getting wet, that it will soon start to rot if it hasn't already.

Novel forms of construction should be studied carefully, keeping in mind that wood admits moisture very readily through ends of pieces. The inspector should also look for spots where moisture may be trapped long enough for decay to get started.

Indoors, condensation and leaks in plumbing and caulking supply moisture for decay. The wood around showers, sinks, and tubs should be carefully investigated. Flooring that is no longer level, does not fit tightly against baseboards, or feels spongy when walked on is probably decaying.

INSECTS

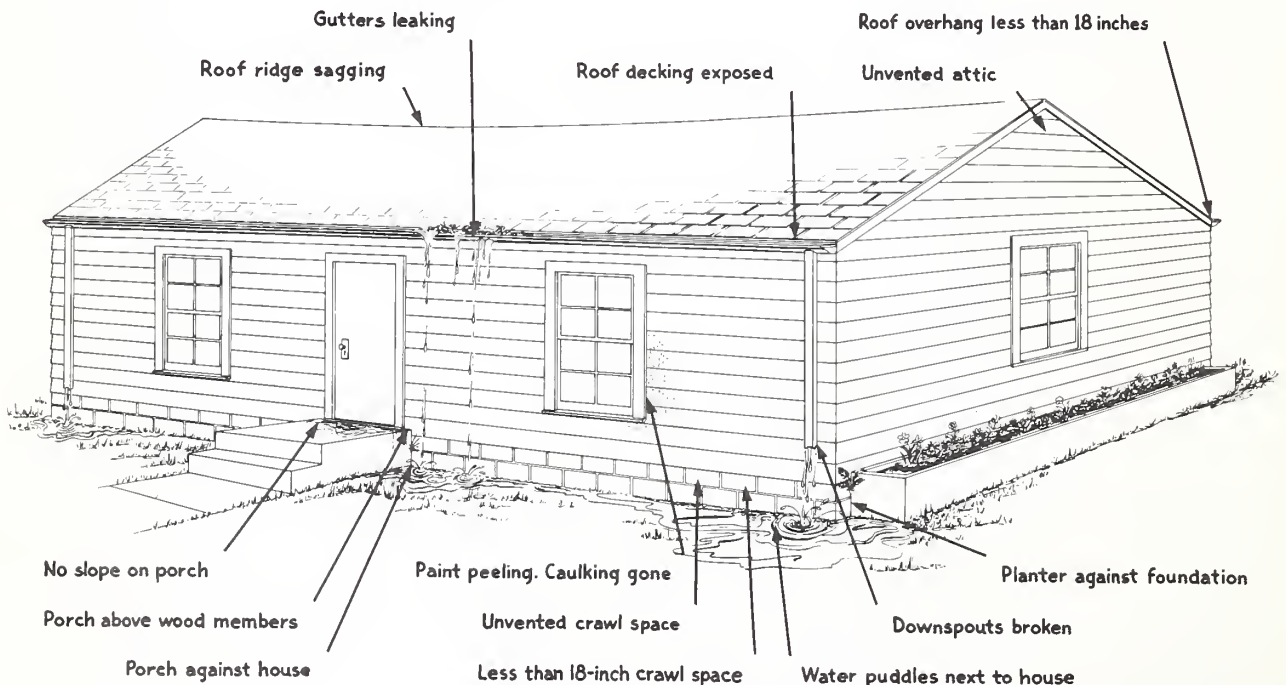
Drywood termites, wood-destroying beetles, carpenter ants, and carpenter bees can cause major damage in houses, but subterranean termites are the worst trouble makers among insects. Like decay organisms, subterranean termites require considerable moisture.

In wood that does not touch the ground termites draw moisture from the soil through shelter tubes, which are 1/4 to 1/2 inch wide. House slabs and foundation walls should be inspected for those tubes.

Termite colonies produce flights of winged adults, usually in the spring. The adults soon shed their wings, and discarded wings beneath doors and windows or around light fixtures inside the house are almost a sure sign of infestation.

Houses can be protected against attack by treating the soil under and around the foundation with an appropriate insecticide. In areas where subterranean termites are a big problem, the buyer should make every effort to learn whether the soil has been treated.

The booklet "Finding and Keeping a Healthy House" provides a checklist for the buyer who wants to make a thorough inspection. It also describes measures for controlling wood-destroying insects and decay. Copies are available on request from the Southern Forest Experiment Station, 701 Loyola Avenue, New Orleans, Louisiana 70113.



Features that invite decay.



ON PLANTING HARDWOODS

Here is a method for planting green ash that shows promise. It is one of the improved and innovative techniques being tested by Southern Forest Experiment Station researchers at the Southern Hardwoods Laboratory at Stoneville, Mississippi.

A planting tool not unlike a wide, shallow shovel makes a slit or narrow trench. Cuttings 10 to 14 inches long are made from 1-year-old trees that have been cut at ground level. The cuttings are placed horizontally in the narrow trench. Planting depth of 1 to 3 inches seems most successful.

Sprouts originating from cuttings planted in this manner have grown more than 12 feet tall in less than 2 years. The cuttings shown here are about 5-1/2 months old.

Green ash is adaptable to areas that are flooded during the winter and early summer. It grows well in Sharkey clay soil and tolerates a wide range of moisture conditions. The species doesn't mind shade and can be established in the understory, thus offering good potential for stand conversion.

This system for planting alleviates replanting a nursery, since the cut nursery stock resprouts to produce new trees the following year. The system appears adaptable to mechanization, and sprouts seem to grow faster than 1-year-old seedlings. In commercial application the planting trench would be made by a tractor.



Discover America's National Forests

Be our guest—discover America. That is the invitation a new Forest Service booklet gives prospective vacationers.

Titled "National Forest Vacations," the 56-page booklet is packed with information. Whether the travellers' plans call for water skiing at a resort hotel, back-packing into a wilderness, or a roadside weiner roast, the book has helpful advice. How to get there, what to take, what to expect—all are covered.

Many of the 154 National Forests feature "front door" information stations. Here a visitor can obtain maps and information about local attractions.

Some opportunities on National Forests include a ride on the Narrow Gauge Railroad in the San Juan National Forest in Colorado, a walk through the botanical paradise of the Cranberry Glades in Monongahela National Forest in West Virginia, a guided boat tour on Echo Lake in Eldorado National Forest in California, and an inland waterway cruise aboard the Alaska Ferry up the North Pacific Coast from Seattle to Skagway.

At some centers an interpretive naturalist greets visitors, helps plan their outing, presents illustrated talks, leads interpretive walks, and conducts evening campfire programs.

Recent additions to the interpretive program include trails designed for visually and physically handicapped. The Roaring Fork Braille Trail in White River National Forest in Colorado and the Trail of the Whispering Pines in San Bernardino National For-



est in California were the first to be built. Most recent is the Trout Pond Area in Florida, bringing to nine the number of National Forests with recreation sites for handicapped.

Single copies of "National Forest Vacations" are available on request from the Southern Forest Experiment Station, 701 Loyola Avenue, New Orleans, Louisiana 70113.

Bald Cypress: Endangered or Expanding Species

Bald cypress is one of the most famous American trees, but the stands have been heavily cut and many people think they are not reproducing naturally. Is cypress really an endangered species? Exactly what is the status of the Nation's cypress resources? Can cypress be restored to economic significance?

These questions are at least partially answered in a study conducted by the Southern Forest Experiment Station's Principal Resource Analyst, Herbert S. Sternitzke. His findings appeared in *ECONOMIC BOTANY*, Volume 26, published in 1972.

Bald cypress has been highly prized for lumber since colonial times—especially in the Southeastern United States. Expansion of railroads by the early 1900's helped widen the market for cypress lumber. Production peaked in 1913, when more than one billion board feet were milled.

As large tracts of old growth were depleted, output gradually declined. In 1940 it still totalled more than 400 million board feet, but dwindled rapidly after World War II. Sawmills cut only 240 million board feet in 1954, the last year for which the Bureau of the Census issued such data. At present only a handful of mills saw cypress.

USDA Forest Service surveys indicate that the volume of cypress growing stock on commercial forest land in the U. S. totals 4.6 billion cubic feet. Florida and Louisiana encompass more than half the entire inventory. Most of the remainder is in Georgia and South Carolina. Except for southern pines, cypress is

still the most abundant conifer in the Southeastern United States.

But a question remains among scientists concerned with the South's wetlands ecosystem. Is cypress increasing or decreasing, and to what extent?

Updated information from the forest surveys indicates that the volume on commercial land rose approximately 26 percent between 1953 and 1968—an average annual increase of slightly less than 2 percent.

Most of the trees are still too small for high-quality sawtimber. They are also far too young to contain much of the heartwood that gave the old-growth timber

its well-deserved reputation for durability. Nevertheless, the trees are there. Furthermore, they are of good form and vigor. With proper management, cypress could again become a significant feature in the lowland forests of the Southeastern United States. At the same time, Sternitzke emphasizes the need for knowledge about the trees' response to specific management actions.

Copies of Sternitzke's analysis appearing in *ECONOMIC BOTANY* are available from the Southern Forest Experiment Station, 701 Loyola Avenue, New Orleans, Louisiana 70113.



Vigorous second growth bald cypress in north Mississippi.

SIGNS OF THE TIMES

A small square road sign bearing a drawing of a tent indicates a campground. A man on horseback means a horse trail. A knife and fork relates to food service.

Maybe the symbols aren't understandable the first time you see them. But signs without words are being adopted for use on the Nation's public lands because they are thought to make for quicker, easier recall once a brief learning period is over. Besides improving communications with the public, they will reduce clutter along roads and highways, since they are smaller than conventional signs. Smaller signs cost less, too.

Seventy-seven symbols were adopted by a committee composed of representatives from several agencies, including the National Park Service, the Bureau of Indian Affairs, Bureau of Sport Fisheries and Wildlife, Bureau of Land Management, the Forest Service, the Corps of Engineers, and the National Highway Safety Bureau.

After 3 years of study and evaluation, the committee thinks that the graphic descriptions adopted for the signs can be understood by people of all cultures and languages—even by people who haven't learned to read.

Here are a few of those you may be seeing.



Falling Rocks

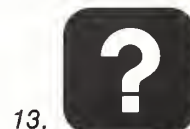


Dam



These two pine seedlings were treated exactly alike, except that one was fertilized. Both are loblolly pines. The seeds were germinated in Japanese paper pots and kept in the greenhouse at the Alexandria, Louisiana, Forestry Center until they were 8 weeks old. Then they were planted in the field, pots and all. Both were 3 months old when the pictures were taken. But the thriving specimen on the right had received a weekly application of soluble fertilizer from the time it was 2 weeks old until it was put into the field. The smaller one on the left received none.

Now try your skill at these. Check your answers with those on page 8.



PRESERVATION AND TIMBER TOO

Can demands for wood products be satisfied if large areas of public forest continue to be withdrawn from timber production for national parks, national recreation areas, wilderness areas, and the like? Dr. Walter C. Anderson, an economist at the Southern Forest Experiment Station, says that they can—if the public is willing to pay the price. The price, as he sees it, is some form of subsidy to encourage owners of small private tracts to practice forestry.

In a recent issue of the JOURNAL OF FORESTRY, Anderson points out that owners of such tracts account for the largest block of the Nation's forest land, and that their land is not growing its share of timber. He says that few of these owners practice forestry, even in a primitive form.

Anderson cites the Soil Bank Program and a large tree planting effort for soil stabilization in northern Mississippi as proof that generous payments to landowners will stimulate tree planting. He believes that similar new programs to increase wood production would be justified only if the public decides that it has a greater stake in private tracts than the owners themselves. The costs would be very high because payments would have to be made available to all, not just those who otherwise would refuse to practice forestry. Hence, some owners would substitute public monies for private funds they would have spent.

"We have run out of cheap ways to increase timber production substantially on small ownerships," according to Anderson.



Scenic areas can be preserved if management on small woodlands is intensified.



Subsidies, he believes, would certainly increase production, permitting people to have sufficient wood products as well as untouched stands of trees to enjoy in a natural setting.

Copies of the article, "Preservation and Timber Too," are available on request from the Southern Forest Experiment Station, 701 Loyola Avenue, New Orleans, Louisiana 70113.

GOOD FIRES BAD FIRES

Wildfire raging through a forest. Green, healthy trees reduced to blackened snags. A forest grossly changed. That is the picture which comes to mind when forest fire is mentioned.

But anyone who has warmed his hands by a fireplace and enjoyed its friendly light knows that all fire is not a raging monster. Air is not bad because of occasional hurricanes. Water is good despite its potential for devastating floods. Fire, no less than air and water, is a natural force on earth.

In the days before settlement, fires set by lightning or by Indians burned through southern forests at irregular intervals. Today, carefully controlled fires can be used for such purposes as removing fuel that might feed a disastrously hot wildfire, keeping browse plants at heights reachable by deer, controlling unwanted vegetation, and checking the brown spot disease of young longleaf pine. Controlled burns are usually planned for times when weather and fuel conditions prevent the fire from becoming unduly hot.

Smokey Bear has helped to make people conscious of carelessly caused wildfires, and he continues to ask for caution. Why is fire sometimes good and sometimes bad?

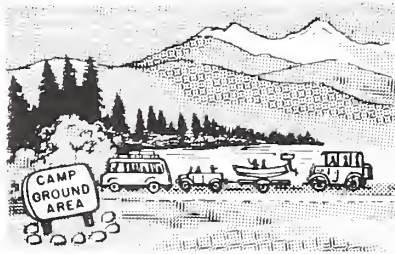
Well, as one example, it can destroy a pine stand if it strikes before the trees are big enough to have developed some resistance. And among good hardwoods, any fire is bad at any time—it kills young stems and wounds older trees so that decay can enter. As another ex-

ample, a fire in spring may harm such wildlife as ground-nesting birds. And if it starts when fuel is abundant and dry, a wildfire may burn so hot that it will kill pines that would survive a controlled burn.

The Forest Service is making strong efforts to inform people about fire in the forest.

"Wildfire" is a booklet telling in color the story of modern fire fighting. It traces development of techniques for fighting wildfire by "hitting 'em hard and keeping 'em small."

A booklet by the Southern Region of the Forest Service tells the story of a forester applying fire skillfully. Its title is "Fire in the Forest, Servant or Master?"

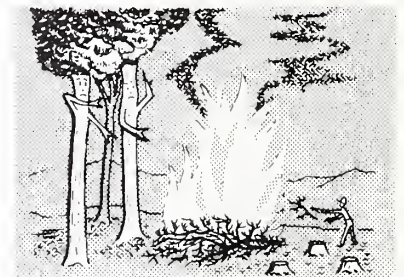


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"The Natural Role of Fire" is a 22-page account of fire's part as a natural agent of change in the forest, particularly the northern Rocky Mountain region.

Single copies of these booklets are available from the Southern Forest Experiment Station, 701 Loyola Avenue, New Orleans, Louisiana 70113.

A new 16-millimeter color film called "The Friendly Flame" illustrates how controlled burns can be made with a minimum of environmental pollution. The film runs 25 minutes, and interested groups can arrange to borrow a print by contacting the USDA Forest Service, Room 150, Peachtree Road NW, Atlanta, Georgia 30309.



ANSWERS TO SIGNS OF THE TIMES

1. Firearms
2. Smoking
3. Automobiles
4. Telephone
5. Post Office
6. Mechanic
7. Tunnel
8. Ranger Station
9. Food Service
10. Grocery Store
11. Restrooms
12. Drinking Water
13. Information
14. Deer Viewing Area
15. Pets on Leash